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Correspondence: Depreciation and the Dollar

J. M. Chenoweth

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Correspondence

Depreciation and the Dollar

Editor, The Journal of Accountancy:

SIR: I am very much interested in the article by J. Hugh Jackson, appearing in the February issue of the JOURNAL. It presents in convincing style the principal arguments which I have so often more vaguely urged to our clients on the question of cost as a basis for computing depreciation during the period of high price levels through which we have just been passing.

But notwithstanding that for practical purposes the writer agrees with Mr. Jackson on the question of cost as a basis for depreciation charges, yet it has been my opinion that there has been a condition involved in this question which is not receiving due consideration by those who are discussing and writing on this phase of the topic of depreciation.

It may be said, without particular reference to the recent high price levels, that there are two general causes, either or both of which may be responsible for an increase in cost of replacing depreciable property over its original cost; and these causes differ fundamentally as to their bearing on depreciation charges. When depreciable assets are carried on the books at cost the ledger account is, in a sense, an equation which may be interpreted to read:

Cost value of asset = blank dollars.

We are accustomed to consider the dollar as a standard unit-of-value measure and to assign to it the same meaning whenever and wherever it may appear. In other words, we adopt it as a fixed yardstick by which we measure all other property values. But is this concept of the dollar safe when considering cost values for depreciation purposes and such cost values are to be used throughout a period of years during which price levels are changing? The real value of the dollar is its purchasing power, which changes as prices rise and fall; and our equation above therefore contains a variable for its right-hand term and is therefore without meaning until the term "dollars" is explained and defined. If we substitute for the above equation one which reads,

Steam shovel (cost value) = \$50,000.00

no one, however familiar with prices of steam shovels he may be, will understand from this equation alone the grade or kind of steam shovel purchased. He will require additional information as to the date of the purchase, i. e., the kind of dollars invested in the shovel.

If in normal times when price levels are approximately stationary, the United States government were to revise its monetary system and apply different names to our coins and currency and should apply the name dollar in the revised system to the measure of value previously indicated by our half-dollar, any one would at once recognize that if we expected to retain the old name (dollars) we would have to increase the number of dollars shown in our former accounts by 100%. But when a similar condition is brought about through the stealthy process of gradual price

The Journal of Accountancy

increases so that the name dollar which formerly represented the purchase price of 100% of a commodity now represents the purchase price of only 50% of the same commodity, we become confused as to how to interpret the situation and how to reflect it in our accounts.

Let the following two equations be assumed:

- (1) Plant-original cost value = forty thousand 1915 dollars.
- (2) Plant-expected replacement cost value = fifty thousand 1925 dollars.

The increased cost of replacement over original cost value may be due to

- (1) Change in relative intrinsic value of plant as compared with other property values (left-hand term of the equation);
- (2) Change in the purchasing power of the dollar due to changing price levels (right-hand term of the equation);
- (3) A combination of changes in both terms of the equation.

If the increased cost of replacement is due solely to an increased relative intrinsic value of the plant as compared with values of other property (left-hand term of the equation), while price levels remain the same as at date of original cost, it is evident that original cost should be the basis for depreciation charges. But if the increased cost of replacement is due primarily to the general increased price levels of all property, that is, to the diminished purchasing power of the dollar (right-hand term of the equation), it appears that, theoretically, at least, the basis for depreciation charges should be the reproduction cost value.

The purpose of the depreciation charges is to return to the investor the equivalent of, not only the same number of dollars invested, but also the same kind of dollars invested.

For illustration, an investor who in the year 1915 paid fifty thousand 1915 dollars for a steam shovel with a useful life of five years, and in 1920 finds himself in possession of only fifty thousand 1920 dollars as depreciation reserve, has not recovered the equivalent of the fifty thousand 1915 dollars which he invested in the shovel.

If we may safely consider that price levels and the purchasing power of a dollar have a definite fixed normal position, and that all movements above and below this fixed location represent merely temporary swings which will return again to the fixed normal starting point, then the basis of cost for computing depreciation charges, perhaps, in the end always will accomplish the true purpose of the depreciation charge for the company that is started in normal times and continues permanently in the same line of business through complete cycles of normal and abnormal times. But for a company which is started in normal times and is concluded in abnormal times or one which starts in abnormal times and is ended in normal times, the cost basis for depreciation will not accomplish the true purpose of a depreciation charge.

It is recognized that while the theory herein discussed may have some merit, the impossibility of accurately forecasting either the fluctuations of price levels or the term of the useful life of depreciable property and the impracticability of adjusting book values of permanent assets for every fluctuation in price levels render the plan of little practical worth. However, it is believed that when reproduction cost exceeds original cost,

Correspondence

and such excess is due to increased price levels instead of to increased intrinsic relative value of the property, the cost-value basis for computing depreciation does not accomplish the purpose for which depreciation charges are made, and that this is especially true in the case of business which was started in the period of low pre-war prices and ended in the recent years of abnormally high price levels. Considering also the importance which the depreciation question now holds, and the fact that it is still only in the development stage, it would seem that any theory which contains a grain of truth, however impracticable of application in the light of our present knowledge of the subject, should receive full discussion and consideration by the accounting profession.

Yours truly,

J. M. CHENOWETH.

Indianapolis, Indiana.

Samuel E. Tromley and Fred R. Payne announce the formation of a partnership under the firm name of Tromley & Payne, with offices in the Northwestern Bank building, Portland, Oregon.

William A. Milligan & Co. announce the removal of their offices to the Canadian Pacific building, Madison avenue and 43rd street, New York.

Charles E. Van Dame & Co. announce the removal of their offices to 1123 Stock Exchange building, Los Angeles, California.

Pogson, Peloubet & Co. announce the removal of their offices to the Cunard building, 25 Broadway, New York.

Boyce, Hughes & Farrell announce the removal of their offices to 110 William street, New York.

Mitchell & Ferris, New York, announce that Leslie N. Simson has become a partner in the firm.

Edward W. Shoemaker announces the removal of his office to 15 William street, New York.

Otho G. Cartwright announces the removal of his offices to 31 Nassau street, New York.

Ernest B. Cobb announces the opening of an office at 150 Nassau street, New York.

Henry Varay announces the removal of his office to 76 William street, New York.